

preferred embodiment, the vaccine consists of a 16 (± 4) kDa antigen and/or 30 (± 4) kDa antigen in a subunit vaccine. Preferably, the 16 (± 4) kDa antigen and/or 30 (± 4) kDa antigen are produced in a recombinant bacterium or eukaryote expression vector which produces the proteins which are then isolated to make the vaccine.

In another embodiment of the vaccine, the vaccine is a DNA vaccine that comprises a recombinant DNA molecule, preferably in a plasmid, that comprises DNA encoding all or part of the 16 (± 4) kDa antigen and/or 30 (± 4) kDa antigen. In another embodiment of the vaccine, the recombinant DNA is inserted into a virus vector to provide a live vaccine which is a recombinant DNA virus.

In U.S. Patent 6,153,394 to Mansfield, which is hereby incorporated herein by reference, it was disclosed that *Sarcocystis neurona* possesses two unique antigens, a 16 (± 4) antigen and a 30 (± 4) kDa antigen. These antigens do not react with antibodies from other *Sarcocystis* spp.

Thus, these antigens are useful for producing vaccines that protect equids against *Sarcocystis neurona*.--

In the Claims:

~~Cancel Claims 1-3, 10-12, 18-22, 29-44, and 47-48.~~

Amend Claims 4 and 23 as follows.